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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,939	04/05/2004	Fred Buchali	Q80563	3035
23373	7590	08/08/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER TRAN, DZUNG D	
			ART UNIT 2613	PAPER NUMBER
			MAIL DATE 08/08/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,939

Applicant(s)

BUCHALI, FRED

Examiner

Dzung D. Tran

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-5, 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Pathak et al. US 7,158,727.

Regarding claim 1, Pathak discloses in Figure 1, a receiver device for optical data signals, in particular optical data signal in the Gb/s range, comprising:

an opto-electrical conversion unit 101, which converts an optical signal, that is received from a source external to said receiver device, to a converted electric data signal, that is received from a source external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit 108, which frequency-multiplies the converted electrical data signal; and

a clock recovery unit 103;

wherein the frequency multiplier unit 108 performs a frequency multiplication by a factor of n , with n being a natural number larger than 2 (i.e., $n = 4$).

wherein the receiver device comprises a frequency filter for the spectral power of the electrical data signal, and wherein the frequency filter transmits around B/n , wherein B is the bit rate of the electrical data signal (i.e., the 1:4 demultiplexer filtering or separating the clock signal 110 from 1-Bit stream data signal).

Regarding claim 3, Pathak discloses in Figure 1, wherein $n = 4$.

Regarding claim 4, Pathak discloses the optical data signal are 10 Gb/s or 40 Gb/s signal (col. 2, Table 1; col. 5, lines 35-52).

Regarding claim 5, Pathak discloses the clock recovery unit comprises a phase locked loop circuit (col. 5, lines 58-67).

Regarding claim 7, Pathak discloses the data transmission system comprises an optical transmission link 100, wherein transmission link has a significant dispersion (it is inherently that dispersion occurs in the optical fiber system).

Regarding claim 8, Pathak discloses a processor (see figure 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green US 6,909,309 in view of Pathak et al. US 7,158,727.

Regarding claim 1, Green discloses in Figure 9, a receiver device for optical data signals, in particular optical data signal in the Gb/s range, comprising:

an opto-electrical conversion unit (i.e., PHOTO DET.) 1200, which converts an optical signal, that is received from a source external to said receiver device, to a converted electric data signal, that is received from a source external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit 1208, which frequency-multiplies the converted electrical data signal; and

a clock recovery unit 1202;

wherein the frequency multiplier unit 1208 performs a frequency multiplication by a factor of n , with n being a natural number larger than 2 (i.e., $n = 16$).

Green does not specifically disclose wherein the receiver device comprises a frequency filter for the spectral power of the electrical data signal, and wherein the frequency filter transmits around B/n , wherein B is the bit rate of the electrical data signal. Pathak discloses in Figure 1 the 1:4 demultiplexer filtering or separating the clock signal 110 from 1-Bit stream data signal. At the time of the invention was made, it would have been obvious to an artisan to replace the DEMUX 1204 of Green with the filtering demultiplexer of Pathak. One of ordinary skill in the art would have been motivated to do that in order to extract the clock signal from the data signal.

Regarding claim 3, Pathak discloses in Figure 1, wherein $n = 4$.

Regarding claim 4, Pathak discloses the optical data signal are 10 Gb/s or 40 Gb/s signal (col. 2, Table 1; col. 5, lines 35-52).

Regarding claim 5, Pathak discloses the clock recovery unit comprises a phase locked loop circuit (col. 5, lines 58-67).

Regarding claim 6, Examiner take an official notice that it is well known in the art that the clock recovery unit comprises a filter clock recovery circuit.

Regarding claim 7, Pathak discloses the data transmission system comprises an optical transmission link 100, wherein transmission link has a significant dispersion (it is inherently that dispersion occurs in the optical fiber system).

Regarding claim 8, Pathak discloses a processor (see figure 2).

Response to Arguments

5. Applicant's arguments with respect to new claims 1, 3-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2613

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

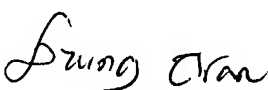
If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (571) 272-3022.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran

08/03/2007


DZUNG TRAN
PRIMARY PATENT EXAMINER